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US Electric Utilities & IPPs

In Search of Western Opportunities

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California 1x1 Mini-Conference yields trove of datapoints across sector

We hosted our annual UBS West Coast Mini-Conference in SF & LA this week with investors and executives across utilities, power, and renewables. We hosted a variety of companies including AGR, AVA, BKH, EE, ES, NJR, PCG, and PEGI. The focus was clearly on California utility policy given the slew of regulatory meetings as well including updates on both the Cost of Capital case as well as key further capex items.

Where are we seeing some confidence in California? SONGS Settlement

Among the most notable elements in our latest California meetings was an emerging confidence that a settlement was quite possible with respect to the long-standing SONGS situation between EIX and parties. We emphasize that despite the inclusion of a wide array of parties including Aguire, progress remained ongoing and we note the latest August timeline with a mediator bodes well for EIX. We continue to expect a further monetary payment in exchange for forgoing formally reopening the docket.

Where are the challenges in California? EIX's rate case

We continue to perceive clear challenges to SCE's pending GridMod spend embedded in its pending rate case. We note multiple parties including ORA, TURN and even solar constituencies have filed challenging the proposal put forth by the company. The question appears to be just how much of the capital will ultimately be approved. To this end, we also note some concern on the opacity of the associated Cyber Security spend of ~\$300 Mn in the case.

Cost of Capital Settlement: Don't Perceive Much Hope

Following the replacement of the original Proposed Decision (PD) with a revised arrangement, resulting in just a one-year stayout vs. a two-year deal originally contemplated, we note limited confidence among parties for a return to the original deal. We suspect this will remain a small but known positive in the very near term. The core question to which few have a clear view is just where any future cost of capital case is heading.

What about the core capex issues? EVs on the menu as well as gas storage

We note the relative size of the EV spend under the latest Medium & Heavy duty EV filing appears to be gaining some level of traction with parties; this is notably larger than the capex committed under the original light vehicle petition approved last year for ratebasing charging stations. Further, we see gas storage as meriting close attention into the finalization of rules in the ~September timeframe, likely resulting in ~\$300 Mn of additional capex to PCG's forecast. It remains unclear to what extent SRE will be able to return the Aliso Canyon asset to service.

Rebuffing the Trump Trade: California Poised to Raise Renewables Further?

We note a clear potential for California to pursue additional legislation under SB100 to expand the RPS to 100%, with an acceleration of the RPS for 50% to 2020, vs 33% originally. We emphasize this could re-accelerate some procurement for solar, which appears largely stalled for now given over-procurement.

Debate remains on the Community Aggregation Effort

We continue to perceive a clear and expanding debate on just how quickly communities will elect to migrate. We note the current ~4% of system load migrated could well expand in the next year towards ~15%, but the question is whether this will hit upwards of 50% as anticipated by initial interest indications. We note the current pace of reform does not appear slated to drive an increase in exit fees and ongoing tariffs until at least 2018. Credit Risk under these renewable deals remains critical too.

California Factors

What are the critical factors impacting the state from our latest regulatory meetings in the state?

- **Consumer rate inflation continues to garner close scrutiny:** We expect O&M reductions will remain a critical subject to EIX but also for PG&E as inflation on core customers is magnified by declining sales and the impact of adjusting the resi tariffs for the new rate structure after years of a freeze for the lowest customers. While PG&E remains largely committed to ~inflation like levels, this appears to have trended materially above this under certain tariffs in recent periods. Broadly, this is a risk and critical focus identified by mgmts.
- **Larkin substation outage:** We note some recent consternation in San Francisco around the recent Larkin outage with a portion of SG out of service. We could yet see this garner modest incremental attention.
- **Time of Use Rates:** This remains an ongoing critical question for PG&E and EIX, and less so for SDG&E given their high overall rates already. We note changes in TOU rate constructs in coming year across the state could well modestly reduce the NEM proposition. We emphasize this would impact not just resi tariffs but also the C&I opportunity for net metering, potentially more important from an aggregate MW impact.
- **Minimum Bills & Fixed Charges:** We believe fixed charges could yet increase to their maximum level at \$10/mo despite petitions from the utilities for yet higher levels. We note

minimum bills are largely already established for resi customers at this \$10/mo level (not to be confused with fixed charge prospects).

- **Solar procurement continues in various shades:** Despite having hit its RPS already, we note a variety of programs including Community Solar and Green Tariff initiatives continue to push for additional spend.

Solar Updates

The latest Run-Down on Solar, Suniva, and Cell Costs

We note industry representatives continue to see an expectation of a 201 tariff filing going into effect. Only last week the U.S. Trade Representatives' Office informed the WTO it was considering imposing emergency tariffs on crystalline silicon photovoltaic cells, regardless of their end product configuration; affirming the administration's alignment with the 201 filing, given that the U.S. Trade Representatives' Office falls below the executive branch.

We highlight significant optimism regarding further cell/module price reductions, with expectations on variable cell prices at around 20c/W for 400W panels by 2020. We note current prices around 34c/W for 72W panels (*and other datapoints anecdotally pointing to upwards of a ~\$0.10/W jump in panels in recent weeks on select US deliveries given the premium to deliver within the current year outside of tariffs, illustrative of the transient squeeze in pricing this year*). According to industry experts, price reductions should be primarily driven by efficiency improvements in regards to total watts per cell from 4W to 5.5-5.75W per cell (best case, but more likely commercial deployments will remain tied to ~5.5). Deflation will continue despite the transient uplift in US solar panel prices under any 201 filing implementation for a 3-4 year period. We suspect future deployment could well be delayed into ~2021+ as prices continue to decline and a strong incentive after tariff program expires, in contrast to existing ITC incentive to accelerate potential deployment. We flag the commence construction language implementation for solar is key here as qualifying sites will enable the continues deployment after formal 2019 expiration and into the period in which import tariff program would seemingly no longer be in effect.

With successful 201 filing, projected all-in solar build costs of \$0.75/W could yet rise meaningfully, albeit with the core expectation being for a panel price increase. Import duties would support pure U.S. solar products, but harm anyone producing outside of the United States, including Chinese producers, but also U.S. producers with parts of their supply chain outsourced to Mexico or Canada. Based on developer comments at the conference, such price increase could likely lead to the abandonment or renegotiation of PPAs scheduled for 2018/2019, as well as the demand for more flexibility on PPAs currently being negotiated.

Beyond the Suniva 201 filing, we note increasing concern surrounding curtailment, with buyers pushing developers to take on increasing curtailment risk. We note the current industry standard is for the developer to take on 50-100h of curtailment, with the remainder to be carried by the off-taker; however, buyers increasingly push for 200h, which is close to 10% of operating hours,

making the economics of projects difficult at current prices.

Private equity appetite for the sector remains elevated, with a broader expectations among many market participants we spoke with for a premium valuation vs. public markets. We flag expectations on discount rates remain near 7-9% levered, which is consistent with past datapoints. We emphasize the merchant tail of projects continues to also gain growing attention as PPA tenors grow shorter. Discussion of recontracting renewable deals with subsequent energy + REC products for longer tenors is also a growing component of focus in the sector given this could well shift the perceived long-term 'merchant' risks. Bottom line, we have seen pricing expectations fall off from previous high merchant expectations, but a steady bid from private valuations supports our more constructive view on the YieldCo sector altogether, albeit with clear bifurcation on risk of select portfolios (do they need to be broken up?) and potentially re-leveraging. We look for completion of various stated strategic reviews from both the major sponsors of CAFD and of ABY; this in turn could spur all the more interest in the likes of NYLD. We note that appetite for contracted gas generation remains equally robust, suggesting consistent cash flows remain at a premium rather than just renewables.

With regards to new renewable opportunities, we see meaningful interest in California, specifically Community Choice Aggregation and municipal utilities; with industry representatives considering as much as 50% CCA by 2020 as a reasonable possibility under SB100 (could this prove the next driver of meaningful procurement in the state?). On CCA, industry sees the main drivers being not only the economics, (i.e. under-pricing the IOU rates), but also the ability of self-control and the opportunity to increase renewable penetration beyond current RPS standards. We highlight counterparty creditworthiness as well as the risk of consumer defection as the largest challenges to expanding CCA.

Brief Company Blurbs

PG&E

Mgmt. remains positive despite CPUC safety concerns, points to service improvements and possible load growth driven by EVs—we remain sceptical.

Our conversation with PG&E mgmt. provided flavour on current issues surrounding the Norstar report on Safety Culture OIIs as well as possible ROE cuts and the denial of additional funding for the Diablo Canyon decommissioning fund.

Mgmt. highlighted strong customer service performance, as well as the recent focus on public and employee safety. We highlight mgmt views the Norstar report as “hurtful not helpful,”

stating they have completed approximately 2/3 of recommendations so far and are confident they can complete the remainder of the recommendations before next summer's hearings with the CPUC. Moreover, in regards to the announcement on potential ROE cuts (given the safety concerns), mgmt. interprets these as a fine to incentivize safety improvements, than a substantial threat to next year's cost of capital calculation. However, we view these statements rather cautiously, given the recent incident at the Larkin substation, where a fire cut electricity supply to over 80,000 PG&E customers in San Francisco.

In terms of Diablo Canyon, we highlight mgmt. remains little concerned by the CPUC decision to deny the request for decommissioning fund increases for Diablo Canyon, basing the decision on the lack of site specific cost estimates not, however, on a denial of further decommissioning support. In fact, PCG interprets state law to support their demand for further decommissioning funds, and pointed to Humble Bay where they received 100% of their request after providing site-specific cost estimates. We look for a site specific estimate process to kick off in 2018, with a conclusion several years thereafter.

We note mgmt. sees California electric vehicle targets as opportunity for significant load growth. Currently, CA governor Jerry Brown has set the goal of 1.5 million EVs by 2025, but the CA Air & Resource board recently announced that CA would need 4 million vehicles by 2030 to meet its GHG emissions' targets. According to PG&E, assuming 1.5 million vehicles by 2025 and 4 million vehicles by 2030 this would translate into approximately 1% CAGR over the next 15 years or about 1 million new customers.

Finally, we highlight recent decision to increase dividend to \$0.53 from \$0.49, resulting from decision to gradually increase dividend pay-out ratio to 60% by 2019, targeting an average y-o-y dividend growth of 8%. We note that PG&E dividend was previously below comps, thus, this move is positioning PG&E more in line with competitors in the sector than setting it ahead. The expectation remains that the DPS growth will continue at this ~pace through 2019 to hit this target

Avangrid

Mgmt highlights opportunities for both new transmission and generation not included in long-term outlook

We note additional \$2 billion in capex possibilities over the next few years not included in long term outlook. These include three transmission projects in New York and two in Maine, including opportunity of building transmission line to Canadian border to connect with Hydro Quebec. There, mgmt. is considering expanding the proposed MCPC transmission project to extend to the Canadian border. We see this as possible alternative to Northern Pass in bringing Hydro Quebec electricity into MA for the MA RFP, and note that AGR already has the right of way for the entire route to the Maine-Canadian border. In New York, we note three possible transmission RFPs: Western NY, Connect NY, and NY Transco. AGR has bid into Western NY

and NY Transco RFP, with final decision expected in 2H 2017 and 1H 2018 respectively. We highlight Connect NY, where no RFP has been filed yet, but which could possibly include 200+ miles of underground transmission running from Ithaca to NYC along the New York Thruway (remains quite challenging in our view). Again, no final decision has been made on these RFPs, but we see meaningful upside on announced long term capex if mgmt. can execute on opportunities.

We note AGR's strong pipeline of new renewables projects, again with meaningful opportunities to exceed current guidance. According to mgmt., AGR has safe-harbored over 2 GWs of wind turbines in 2016 to keep 100% PTC – approximately 2 GW of wind as well as around 370 MW for repowering. Mgmt. plans to pull down on those through planned generation projects between 2017 and 2020. We emphasize though that currently AGR only has plans for approximately 1.8 GW of projects. Thus, again there is additional room for about 1 GW of new wind generation, if mgmt. can execute.

We note mgmt. focus on decreasing merchant exposures to reduce volatility--2016 merchant exposure was at 38%. To execute on those mgmt. plans all new projects contracted, as well as re-contracting existing merchant as well as expiring contracts. Current guidance sees merchant exposure decrease to 31% by 2020, not including effects of re-contracting current merchant.

We note mgmt. has no near term acquisition plans, seeing most merger opportunities likely dilutive to their anticipated 8-10% growth rate. However, mgmt. does not rule out any mergers should an attractive deal come along. We note such opportunity would have to be renewables focused, with similar growth rate and investment grade rating. In regards to AGR's gas storage, mgmt. seems keen to divest of the assets if possible, as they no longer align with company strategy.

Eversource

We leave California with little confidence in the execution of Access Northeast and only modestly more for Northern Pass. However, we note possibility of offshore wind project with DONG could provide some much needed capex offsets. The size of this project remains unclear. The question is just what other more conventional capex alternatives remain?

Given our conversation with ES, we see Access Northeast as pretty much dead without MA legislation changes. On Northern Pass, we see the payout battle continuing. The most recent status update is that the NH committee is completing its final review, which would likely provide a written order on the project by the end of Sept 2017. After which, the project must then receive federal approval which will likely correlate closely with the state's decision. We note that the project, which intends to bring electricity from Hydro Quebec into New England, likely faces competition from Avangrid which is considering similar project in Maine. We note mgmt. provided little more insight on possible JV with DONG on offshore wind. Final MA RFP is expected June 30th, with final winners to be announced likely in June 2018. ES expects to bid in 400 MWs, and is relatively confident on success in the auction. Should they receive the bid,

mgmt. expects construction to begin in 2022.

Pattern Energy

Main unknown remains related to the DevCo investment

The main unknown for the stock remains the magnitude and scope of the DevCo investment. While more specifics have yet to transpire following the publication of the White Paper (see our related note here), mgmt. reiterated that an investment would remain below the \$100 Mn mark, while an unconditional and ongoing capital call requirement would be unpalatable. We expect a more formal view on the Analyst Day.

Expect more details on cost cutting at the June 29th Analyst Day

We expect more clarity on the cost cutting initiatives at the upcoming Analyst Day in NY, both on the O&M and the SG&A front. On the O&M side, mgmt. believes it can generate \$10-20k in annual O&M savings per turbine as it renegotiates the terms on the OEM agreements with Siemens and GE, and moves towards self-performing maintenance in the longer-term. Given the fleet of 1,100 turbines, this would translate into ~\$10-20 Mn of total savings. Additionally, as the company develops its own maintenance expertise, we could eventually see a potential to earn asset management fees from 3rd party assets; this would diversify revenue streams and could allow the company to supplement growth in case capital markets remain constrained. On the SG&A side, mgmt. remains confident it can reduce overhead over the next few years, although it indicates a true peer comparison is difficult because of the nature of the PEGI model (operating company vs. subsidiary of a larger entity e.g. NEP and NYLD) as well as the lack of clarity and comparability over cost allocation. Overall, we emphasize any meaningful cost saving would be substantially accretive to the stock as it would flow directly to CAFD: \$20 Mn in recurring, annual cost reductions would translate into ~\$3/Sh assuming an 8% CAFD yield.

How to fund growth?

Mgmt. remains reluctant to issue equity at current levels and expect the next drop down to be funded via the revolver. This remains a short term form of financing, with the more permanent source of capital expected to be funded through equity and parent debt, with a targeted 2:1 equity-to-debt ratio. While the RCF availability is back to ~\$400 Mn as the company paid the facility down following the senior note issuance in January, we note credit metric constraints could limit PEGI's ability to fully draw on the revolver. If additional liquidity is needed to fund a project, mgmt. notably remains open to partnerships, where an investor (likely a pension fund) would take a minority equity stake in the project.

Atmos Corp.

Mgmt. indicated that most of the items in its Jan rate case filed with the TX Railroad Commission had been unchallenged, including its request for recovery on \$1.3 Bn of CapEx,

with the main source of debate remaining the allowed ROE. Mgmt. also highlighted that the vast majority of its cost recovery filings are annual mechanisms vs. rate cases, which has allowed the company to dramatically reduce lag and grow rate base at its targeted 9-10%; indeed, the company is able to recover ~95% of its capital spend within 6 months of test year end, and 99% within 12 months.

El Paso (Unrated)

The company increased its dividend last week by 8%, with a target to increase the payout ratio to 55-65% by 2020. In the TX rate case filed in Feb, we highlight testimonies are expected by the end of this month, mgmt. noted its attempt to treat its rooftop solar customers as a separate customer class has garnered a lot of attention in the case despite its negligible size and impact. The company further emphasized its best-in-class load growth justifies the need for further generation resources (mostly gas plants), which would need to remain within or close to its service territory due to local constraints. Mgmt. also highlighted that the company remains carved out of the recent legislation on AMI in TX, but could see a push towards implantation of smart meters in the future, highlight potential upside to its capex plan.

Black Hills Corp. (Unrated)

Mgmt. stated it would continue its current strategy of pushing out rate cases for the next few years (first ones in 2019, and more meaningful cases in 2020 & 2021) as it manages earned ROEs after the close of its Source Gas case. The cadence of the absorption of these benefits dictates rate case timing, but also limits the ability to meaningfully reinvest capex for ratebase growth, instead focusing on cost cutting and efficiency measures in the near term.

On Capex, mgmt highlights the upcoming wind RFP in CO, which BKH expects to win via a separate third party affiliate bid, which could provide an additional \$100 million, currently not included in guidance. We note BKH needs more wind to meet its 30% renewable requirement in the state. Also on CO, mgmt. provided a little more insight on their proceedings at the CO PUC (scrutiny surrounding gas-fired Pueblo plant), announcing that as BKH's request for rehearing was denied; they plan to address the issue in court.

On Cost of Service Gas, we note mgmt. provided little update besides affirming the ongoing consideration of the project having already delayed filings into ~3Q from 2Q. Mgmt. also restated its desire to exit E&P business within the next three years. Finally, mgmt. suggested it is looking to refinance much of their near term (2020) outstanding debt obligations in 2018.

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JULIEN DUMOULIN-SMITH, CFA
Executive Director - Equity Research
Electric Utilities, Alt Energy & IPPs Group
UBS Securities, LLC
1285 Avenue of the Americas
New York, NY 10019
212.713.9848
julien.dumoulin-smith@ubs.com

JERIMIAH BOOREAM, CFA
Associate Director- Equity Research
212.713.4105
jerimiah.booream@ubs.com

ANTOINE AURIMOND, CFA
Associate Director- Equity Research
212.713.1414
antoine.aurimond@ubs.com

NICHOLAS CAMPANELLA
Equity Research
212.713.2851
nicholas.campanella@ubs.com

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